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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,869	10/26/2000	Taichi Shino	2000 1452A	2975

7590 02/10/2004

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EXAMINER	
NGUYEN, CHANH DUY	
ART UNIT	PAPER NUMBER
2675	17

DATE MAILED: 02/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/695,869	SHINO ET AL.	
	Examiner	Art Unit	
	Chanh Nguyen	2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16,17,19,21-23,25-28,30 and 31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-17, 19, 21-23, 25-28, 30-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on November 21, 2003 has been entered and considered by examiner.

Obvious Type Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 16-17, 19, 21-23, 25-28 and 30-31 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,320,326 in view of Kanazawa (U.S. Patent No. 6,288,692 B1).

Claims 1-8 of the U.S. Patent No. 6,320,326 discloses an alternate current plasma display panel as recited in claims 16-17, 19, 21-23, 25-28 and 30-31 of the instant application with exception of describing the structure of the plasma display such as a first substrate, a second substrate, phosphor, a dielectric layer, a barrier.

However, these limitation is well-known in the art as taught by Kanazawa. The limitations display electrodes and conductor recited in independent claims 16 and 26 of the application reads on two pairs of scan and sustain electrodes as recited in claims 1-8 of the U.S. Patent No. 6,320,326. That is "means for applying a certain current to said scan and sustain electrodes so that said current in one of said two pairs flows in one direction and said current in the other of said two pairs flows in the opposite direction" recited in independent claims 1 and 8 reads on the limitation conductor are arranged so that when a pulse voltage is applied to the display electrode, current run through the conductors in a reverse direction to a current running through the display electrodes as recited in independent claims 16 and 26 of this invention.

Kanazawa teaches an alternate current plasma display panel including a first insulating substrate and second substrate (i.e., front glass substrate and rear glass substrate)being transparent and disposed facing each other to form a discharge space. Kanazawa teaches a plurality of display electrodes (51, 52) disposed over the first insulating substrate (front glass), each display electrodes including a scan electrode (51) and a sustain electrode (52) ; see figure 13 and 14. Kanazawa teaches a plurality of data electrodes (53) disposed over the second insulating substrate (rear glass substrate) and being disposed perpendicular to the display electrodes (51 and 52); see Figures 13 and 14. Kanazawa teaches well-known Figures 2-3 having a plurality of phosphors (27) placed along the data electrode and a dielectric layer (24) covering the display electrode as recite in claim. Kanazawa teaches a barrier (58) disposed on the dielectric layer (i.e. dielectric layer 24 referred to Figures 2-3) the

barrier extending longitudinally approximately parallel with the display electrodes (51, 52). Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have to used the structure of the plasma display such as a first substrate, a second substrate, phosphor, a dielectric layer, a barrier as taught by Kanazawa to the U.S. Patent No.6,320,326 so that display contrast can be improved; see column 2, lines 60-67 of Kanazawa.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 16-17, 19, 21-23, 26-28 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa et al (U.S. Patent No. 6,288,692) in view of Shino et al (U.S. Patent No. 6,320,326 B1).

As to claim16, Kanazawa discloses an alternate current plasma display panel including a first insulating substrate and second substrate (i.e., front glass substrate and rear glass substrate)being transparent and disposed facing each other to form a discharge space. Kanazawa teaches a plurality of display electrodes (51, 52) disposed over the first insulating substrate (front glass), each display electrodes including a scan electrode (51) and a sustain electrode (52) ; see figure 13 and 14. Kanazawa teaches a plurality of data electrodes (53) disposed over the second insulating substrate (rear

glass substrate) and being disposed perpendicular to the display electrodes (51 and 52); see figure 13 and 14. Kanazawa teaches well-known Figures 2-3 having a plurality of phosphors (27) placed along the data electrode and a dielectric layer (24) covering the display electrode as recite in claim. Kanazawa teaches a barrier (58) disposed on the dielectric layer (i.e. dielectric layer 24 referred to Figures 2-3) the barrier extending longitudinally approximately parallel with the display electrodes (51, 52). The only thing different between Kanazawa and the claim 1 is that Kanazawa does not teaches one or more conductor being adjacent to a respective display electrode, each of the conductors being spaced from a scan electrode and the sustain electrode of a respective one of the display electrodes; wherein said conductor are arranged so that when a pulse voltage is applied to the display electrode, current run through the conductors in a reverse direction to a current running through the display electrodes. Shino teaches the same way as applicant claimed device. That is Shino teaches well known feature of one or more conductors (e.g., SUSi-1,a) being adjacent a respective one of the display electrodes (e.g., SCNi-1, a), each of the conductors (e.g., SUSi-1,a) being spaced from a scan electrode (e.g., SCNi-1, a) and the sustain electrode (SUSi-1,b) of a respective one of the display electrodes; wherein said conductor are arranged so that when a pulse voltage is applied to the display electrode, current run through the conductors in a reverse direction to a current running through the display electrodes (i.e. current of conductor SUSi-1,a flows from left to right whereas current of display electrode SUSi-1, b flow from right to left); see Figure 11. Therefore, it would have been obvious to one of ordinary skill in the art at the invention

was made to have added a conductor (SUSi-1,a)) as taught by Shino with display data of Kanazawa so that an electromagnetic noise generated in the electrodes can be canceled by another (see column 12,lines 23-41 of Shino).

As to claim 26, this claim differs from claim 16 only in that the limitation "each of the conductor is electronically connected to a respective one of the scan electrode and the sustain electrode" is additionally recited. Shino clearly teaches the conductor being electronically connected to a respective one of the scan electrode and the sustain electrode.

As to claims 17 and 30-31, Shino clearly teaches the conductor being electronically connected to a respective one of the scan electrode and the sustain electrode (see column 12, lines 3-22).

As to claim 19, 21, Figure 4 of Shino clearly teaches the claimed "reverse order" as recited in the claim.

As to claim 22, Kanazawa clearly teaches the barrier (58) being disposed between adjacent rows (52).

As to claims 23 and 28, photo-absortive material barrier is known in the art, even taught by Kanazawa so as to prevent the light from leak.

As to claim 27, Kanazawa teaches a barrier (58) disposed on the dielectric layer (i.e. dielectric layer 24 referred to Figures 2-3) the barrier extending longitudinally approximately parallel with the display electrodes (51, 52).

5. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Shino, as applied to claims 16 and 26, and further in view of Yamada (U.S. Patent No. 6,275,203).

As to claim 25, note the discussion of Kanazawa and Shino above, Kanazawa and Shino discloses an alternate current plasma display panel as recited in claim 1 with exception of describing the limitation "reverse of a polarity" as recited in claim 25. Yamada teaches the voltages applied to the scan electrodes and sustain electrodes being opposite polarity; see figures 6, 19-20 and column 10, lines 15-60. Since one of the conductors of Shino physically connects to scanning line . Thus, at least one of the conductor as the same polarity as the scanning conductor which is opposite polarity of the sustain electrode as modified by Yamada. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used the voltages applied to scan and sustain electrodes with opposite polarity as taught by Yamada to the driving circuit of Kanazawa as modified by Shino so that an electromagnetic noise generated in the electrodes can be canceled by another.

Response to Arguments

6. Applicant's arguments with respect to claims 16-31 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, the reference of Shino has been added for new ground rejection.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanh Nguyen whose telephone number is (703) 308-6603.

If attempts to reach the examiner by telephone are unsuccessful, the examiner supervisor, Steven Saras can be reached at 305-9720.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

CN

C. Nguyen
February 3, 2004

Chanh Nguyen

CHANH NGUYEN
PRIMARY EXAMINER